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BEAM Circular letter 2012.107

Version: BEAM Plus New Buildings Version 1.1

**Appendix 8.6 Assumptions and Baselines for Water Consumption**

This circular letter announces that page 8-22 of “Appendix 8.6 Assumption and Baselines for Water Consumption” of the BEAM Plus Manual Version 1.1 should be superseded by the attachment.

Encl: Amended Page 8-22 of Appendix 8.6 Assumption and Baselines for Water Consumption

Signed :   
Ir. Cary Chan  
Chair of Technical Review Committee

- 8.6 ASSUMPTIONS AND BASELINES FOR WATER CONSUMPTION** The following details the default assumptions for the calculation of the reduction in water use of the project building when compared with an equivalent base line space.
- NUMBER OF WORKING OR OPERATIONAL DAYS** The number of operational days per annum (Nop) should be obtained from the design brief or Owner's Project Requirement (OPR) document.  
The number of non-operational days is equal to 365-Nop.  
The same values of operational and non-operational days will be used for both the project space and the base line space.
- OCCUPANCY CONSIDERATIONS** The number of occupants shall be taken from the design brief, or owner's project requirements (OPR). If this data is not obtainable then, in the absence of any other data, the occupant space allowance should be taken as 9 m<sup>2</sup>/person. [1]  
The male:female ratio should be determined from the design brief or OPR. If the data is not available then the default assumptions are as follows:
- In offices, the male to female occupancy ratio is 1:1 [2]
  - In public places, the male to female occupancy ratio is 1:1.25 [2]
- The same occupancy load shall apply to the project space and the baseline space.
- WC WATER USE** The base line building will have a single flush WC (i.e. no low flush option) with a flushing volume of 7.5 litres per flush. [3] The water closet, cistern and flushing fitting shall be of compatible types.  
For non-residential,  
Males use the WC once per day. If a dual flush system is installed in the project space, it is assumed that the WC will be flushed using the high flush volume.  
Females use the WC five (5) times per day. If a dual flush system is installed in the project space, it is assumed that the average flush volume is equal to the average of one (1) full flush and four (4) low volume flushes.  
For residential,  
Residents use the WC five (5) times per day. If a dual flush system is installed in the project space, it is assumed that the average flush volume is equal to the average of one (1) full flush and four (4) low volume flushes for both males and females.
- WATER USE IN URINALS** For the purposes of calculation, the baseline building would have urinals fitted with 4.5 litres flush and manual controls. The urinal would be flushed after every use. Male employees each use the urinal on average four (4) times per day.

1 Hong Kong Buildings Department (1996), Code of Practice for the Provision of Means of Escape in Case of Fire, Building Authority, Hong Kong.

2 Buildings Department. Practice Note for Authorized Persons and Structural Engineers, PNAP 297, Provision of Sanitary Fitments in Offices, Shopping Arcades and Department Store, Places of Public Entertainment and Cinemas, May 2005.

3 Buildings Department. Practice Note for Authorized Persons and Registered Structural Engineers. PNAP200. Flushing Volume for Flushing Cisterns.